2019 Estimates of the Total Actual Emissions From the Air Pollution Source.

Natural Gas Combustion –

Natural Gas Combustion = 3919 Dekatherms(DTH) / year

3919 DTH = 3919 mmBTU

$$3919 \text{ MMBTU} \times \frac{10^6 \text{SCF}}{1020 \text{ mmBTU}} = 3.8 \text{ lb}/10^6 \text{ scf}$$

$NO_x = 94 \times 3.8/ 2000 = 0.18$ TPY

$CO = 40 \times 3.8/ 2000 = 0.08$ TPY

$CO_2 = 120{,}000 \times 3.8/2000 = 22.8$ TPY

$PM = 7.6 \times 3.8/2000 = 0.01$ TPY

$SO_2 = .6 \times 3.8/2000 = 0.0011$ TPY

$VOC = 3.8 \times 1.9/2000 = 0.004$ TPY

Emission Factors are from EPA AP-42 Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion.

Propane Combustion –

Propane Combustion = 5700 Gallons/Year

1 gal propane = 90,500 BTU

$$\frac{5700 \text{ gal propane} \times 90{,}500 \text{ BTU/gal}}{10^6} = 515.9 \text{ mmBTU}$$

$$\frac{515.9 \text{ mmBTU} \times 1\ 10^3 \text{gal}}{91.5 \text{ mmBTU}} = 5.6 \text{ lb}/10^3 \text{gal}$$

$PM = 5.6 \times 0.7/2000 = 0.002$ TPY

$SO_2 = 5.6 \times 0.1/2000 = 0.0003$ TPY

NO_x = 5.6 x 13/2000 = 0.04 TPY

CO_2 = 5.6 x 12,500/2000 = 35.0 TPY

CO = 5.6 x 7.5/2000 = 0.02 TPY

Emission Factors are from EPA AP-42 Emission Factors for Criteria Pollutants and Greenhouse Gases from Propane Combustion.

Diesel Fuel Combustion –

Diesel Fuel Combustion is 1786 gallons/year

1 gal diesel = 129,800 BTU

$$\frac{1582 \text{ gal diesel} \times 129{,}800 \text{ btu/gal}}{10^6} = 205.3 \text{ mmBTU Diesel}$$

NO_x = 205.3 x 4.41/2000 = 0.5 TPY

CO = 205.3 x .95/2000 = 0.1 TPY

SO_x = 205.3 x .29/2000 = 0.03 TPY

PM_{10} = 205.3 x .31/2000 = 0.03 TPY

Emission Factors are from EPA AP-42 Emission Factors for Criteria Pollutants and Greenhouse Gases from Diesel Fuel Combustion.

VOC Emissions From Coating Operations –

Emissions of VOC Emissions from painting are calculated using information provided on the SDS and by performing the following calculation.

VOC = Gallons of Paint Applied x lbs VOC content/2000 = TPY VOC

Total TPY VOC = the sum the VOC for each specific type of paint.